Table S2.6.4. Form for the preparation of the course information sheets

Name of the subject: Science Communication and Writing

Code of the subject	Status of the subject	Semester	Number of ECTS credits	Class load
	Optional	1	5	2+0

Study programme for which it is organized:

PhD Program "Natural sciences and Technology for Sustainable Development", All modules 3rd degree

Dependency by other subjects:

None

Objectives of studying this subject:

It is important to disseminate one's research broadly, and the Science Communication and Writing course aims at developing student's skills in order to do that effectively. Students shall be informed on the best practices for science communication intended for a variety of audiences, including colleague in the field, other scientists in related field, media representatives and public audiences. A central focus of the course will be on effective communication methods, verbal, visual and written, so that students develop skills on effectively communicating their research for different audiences and through different outlets - scientific papers, conferences, general media articles etc.

- Students will gain factual knowledge about the publication process, including preparation of a manuscript, interaction with journal submission systems and editorial staff and the review process.
- Students will gain factual knowledge about the process of requesting funding for research, teaching or extension projects and the process of grant review.
- Students will develop skills for communicating specialist knowledge to science peers and to nonspecialist audiences.
- Students will develop skills for science communication via oral and written presentations for technical and lay audiences.
- Students will learn how to find and use resources for preparing science articles, proposals or public materials.
- Students will apply course material to improve thinking, problem solving and decisions through course activities, including class discussions and oral and poster presentations.

Contents of the subject (teaching units, forms of students' individual work, forms of testing) presented per working weeks in the academic calendar:

Preparatory week			
I week	- Introduction and objectives		
II week	- Reading and writing well - interpreting scientific data		
III week	- Visualization of scientific data, graphic tools		
IV week	- Journal articles - elements of a standard journal article, graphics, formatting and		
	presentation		
V week	- Journal articles - where to submit and what happens next? Proofing, reviewing and		
	revising articles		
VI week	- Other types of science writing		
VII week	- Writing scientific proposals for grants		
VIII week	- Strategies for effective proposals		
IX week	- Other types of funding		
X week	- Oral scientific communication - strategies for professional meetings, invited lectures		
XI week	- Oral scientific communication - conferences, thesis defense, and lectures for general		
	public		
XII week	- Critique of scientific oral presentations		
XIII week	- Putting it all together: preparing oral presentations		
XIV week	- Putting it all together: poster presentations		
XV week	- Putting it all together: writing a journal article		

Methods of education:

- Students will participate in class discussions, read assignments, critically evaluate presentations and visual and written information
- Attend conference/seminar with the task to write abstracts of the presentations, critique talks for scientific content and presentation style and discuss in class.
- Students will make one poster presentation, one oral presentation of their research, and will write a scientific paper on a topic related to their thesis.

Students' load

2 hours of lectures

0 hours of exercises

1 hours of practical work

Structure:

consultation

Weekly

5 credits \times 40/30 = 6 hours and 40 minutes

Lectures and final exam:

(6 hours and 40 minutes) x 16 = 106 hours and 40 minutes

In Semester

Necessary preparations before the start of the semester:

(administration, enrolment, verification)

2 x (6 hours and 40 minutes) = 13 hours and 20 minutes

Total subject load:

5 x 30 = 150 hours

Additional hours for preparing correction of final exam, including the taking of the exam: 150h - (120h) = 30h Load structure: 106 hours and 40 minutes (Lectures) + 13 hours and 20 minutes (Preparation) + 30 hours (Remedial classes)

Students' obligations during the teaching:

3 hours and 40 minutes of individual work, including

Students are obliged to attend lectures, submit homework assignments and take final exam

Literature:

- Hofmann, Angelika H. (2010) Scientific Writing and Communication, ISBN 978-0-19-539005-6, 1st edition, Oxford University Press
- Goldbort, Robert Writing for Science, Yale University Press, ISBN #9780300117936
- Boeglin, Martha (2010) Akademsko pisanje korak po korak, Akademska knjiga, Novi Sad;
- Oraić-Tolić, Dubravka (2011) Akademsko pismo, Naklada Ljevak, Zagreb;
- Kleut, Marija (2008) Naucno delo od istrazivanja do stampe, Akademska knjiga, Novi Sad;
- Kuba, Li; Koking, Dzo (2003) Metodologija izrade naucnog teksta, CID, Podgorica;
- Ranjit Kumar (2005) Research methodology, Pearson education, New Delhi, India;.

Learning outcomes (complied with the outcomes for the study programme):

Demonstrates a theoretical and practical knowledge and understanding of science communication and writing. After completing this course students will:

- have acquired tools to analyze and present quantitative data using correct cognitive techniques and styles
- have the skills to effectively communicate scientific topics in visual, written and oral form including formulation of effective oral and poster presentations;
- will have the knowledge how to prepare a written, journal-appropriate research paper and a grant proposal

Forms of tests and evaluation:

- Discussions (15%)
- Critique of seminar/conference presentations (15%)
- Poster presentation (15%)
- Oral presentation (15%)
- Writing assignments (40%)

Name and surname of teacher and associate:

Particularities needed to be emphasized for the subject:

Note (if needed):